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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HALEY, JOSEPH R

ART UNIT	PAPER NUMBER
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2627

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08/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/724,138	Applicant(s) PARK, JONG-NAM	
	Examiner Joseph Haley	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Tomita (US 6577566).

In regard to claim 1, the applicant's admitted prior art teaches a method of automatically pausing an optical pickup in a DVD-RAM disc drive (fig. 1), the method comprising: generating a jump signal in response to a state of the land/groove signal varying; and moving the optical pickup back by 1/2 of a track in response to the jump signal (see paragraph 8 lines 1-5) but does not teach determining whether a tracking error signal is generated during driving of a disc; generating a land/groove signal to discern land tracks and groove tracks; determining from which track the tracking error signal has been generated using the generated land/groove signal in response to the determination that the tracking error signal has been generated.

Tomita teaches determining whether a tracking error signal is generated (fig. 13B); generating a land/groove signal to discern land tracks and groove tracks (figs. 13 and 14); and determining from which track the tracking error signal has been generated using the generated land/groove signal in response to the determination that the

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tracking error signal has been generated (see fig. 13C. See also fig. 14D and column 29 lines 38-45).

The two are analogous art because they both deal with the same field of invention of switching from land to groove tracks.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the method of the applicant's admitted prior art with the tracking and land/groove signals of Tomita. The rationale is as follows: At the time of invention it would have been obvious to provide the method of the applicant's admitted prior art with the tracking and land/groove signals of Tomita because using the polarity of a tracking error signal will accurately tell if the laser is on a land or a groove.

In regard to claim 2, Tomita teaches wherein the land/groove signal is at a first state when the optical pickup is positioned over the land tracks, the land/groove signal is at a second state when the optical pickup is positioned over the groove tracks, the land/groove signal transits from the first state to the second state or from the second state to the first state, and the optical pickup is positioned over either the land tracks or the groove tracks depending on the state of the land/groove signal (see figs 13 a and c see also column 24 lines 25-40).

In regard to claim 5, Tomita teaches a microcomputer of the DVD-RAM disc drive receives the land/groove signal and determines from which track the tracking error signal has been generated (see fig. 13).

In regard to claims 6 and 7, Tomita teaches wherein the first state is a high level and the second state is a low level and wherein the first state is a low level and the

second state is a high level (see fig. 13C).

In regard to claims 11 and 12, see claim 1 rejection above.

In regard to the microcomputer of claim 12, see fig. 5 element 46.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Tomita further considered with Takahashi et al. (US 2002/0054974).

In regard to claims 3 and 4, the applicant's admitted prior art and Tomita teach recording data in only the land tracks and only the groove tracks (see paragraph 6 of the applicant's admitted prior art) and all the other elements of claims 3 and 4 except inspecting a quality of an RF of data recorded in the land tracks; and inspecting a quality of an RF of data recorded in the groove tracks.

Takahashi et al. teaches inspecting a quality of an RF of data recorded in the land tracks; and inspecting a quality of an RF of data recorded in the groove tracks (see paragraph 100. Takahashi et al. teaches adjusting the phase separately for the land and groove to improve SNR).

The three are analogous art because they all deal with the same field of invention of recording in optical media.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the method of the applicant's admitted prior art in view of Tomita with the separate phase corrections of Takahashi et al. The rationale is as follows: At the time of invention it would have been obvious to provide the method of the applicant's admitted

prior art in view of Tomita with the separate phase corrections of Takahashi et al.
because treating the land and grooves separately improves the quality of the signal.

Response to Arguments

Applicant's arguments filed 5/22/07 have been fully considered but they are not persuasive. Applicant argues on page 4 that Tomita fails to teach "determining from which track the tracking error signal has been generated using the generated land/groove signal in response to the determination that the tracking error signal has been generated" However the examiner maintains this rejection because in fig. 14D and column 29 lines 38-45, Tomita describes establishing a state of on-track along a land track by using the tracking waveform of fig. 14D. This waveform is a land/groove signal.

On page 5, applicant argues the examiner's motivation for combining Tomita and the applicant's admitted prior art. The examiner maintains this rejection because it is quite clear from figs. 13 and 14 of Tomita that the land and grooves are easily discerned by using the polarity. This is also described in the specification, columns 26 and 30.

On page 6, applicant argues that Takahashi et al. does not describe data being recorded on land or groove tracks. The rejection has been changed to show the applicant's admitted prior art teaches this and Takahashi et al. has been relied upon just to show improving the quality of the signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Haley whose telephone number is 571-272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jrh

/William R. Korzuch/

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